FACTORS AFFECTING ON PHARMACEUTICAL PRODUCTS BRAND PROMOTIONS: A STUDY ON PROFESSIONAL ENDORSEMENT PERSPECTIVE

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Abstract

Sri Lankan pharmaceutical industry is a one of the largest profit making industries in the country with a turnover around 50-60 billion rupees. Indian drug companies dominates the industry and lesser than 25% of multinational companies with a few local manufactures are sharing the profits from the industry. Due to the competitiveness of marketing the branded medicine, each player is following various methods to grab a higher market share and profitability. In pharmaceutical market with a litter of merchandise, it is not possible for a doctor or physician to remember all brands. Companies are using a direct marketing approach with medical representatives and sales representatives approaching doctors for promotional purposes where they detail the drug and request the doctors to prescribe their brands. Awarding sponsorships to a doctor and getting a commitment for the prescription of the particular brand had become a trend for all Sri Lankan as well as global drug manufacturing companies. This research deals with different aspects of drug company promotions and branded medicine prescribing patterns of doctors. Researchers selected 60 practicing medical professionals as the sample from the Western Province of Sri Lanka and distributed a self-administrated questionnaire in order to investigate the professionals' opinions on the brand promotional techniques carried out by the pharmaceutical manufacturers and distributors and the impact of these brand promotional mechanisms on professionals' brand endorsement behavior. Through a literature analysis, five main methodologies used by organizations to promote the pharmaceutical brands were identified, i.e. gifts, sponsorships, free samples, representatives' interactions and corporate image. The analyzed data revealed that the most influential factor leading towards doctors' branded medicine prescription behavior was sponsorships offered by the pharmaceutical firms. At the same time gifts and the interaction between the doctor and the company representatives also mainly encourage doctors to prescribe medicine.

Keywords: Prescriptions, Medical representatives, medical sponsorships, professional endorsements

1. INTRODUCTION

Sri Lankan Pharmaceutical sector has been identified as a fast growing industry with a +10.0% growth in local currency terms and 7.4% in US dollar terms, with a total government expenditure of LKR 75.09 billion in 2014 (Sri Lanka Pharmaceuticals and Healthcare Report, 2015).   Sri Lanka's improvements in healthcare have created stronger commercial opportunities for drug makers and marketers in the country. The total pharmaceutical market of Sri Lanka is approximately US$ 365 million of which the private retail market accounts for approximately 60% of sales while the government hospital purchases account for

approximately 28%, private hospitals account for approximately 10% and dispensing family physicians account for approximately 2% of the total pharmaceutical business (Kariyawasam, 2013).

With a highly competitive background, each and every pharmaceutical company spends millions of money for promotions of their brands. However due to prevailing rules and regulations and also due to the complexity involved with most of the medicine, advertisements targeted to general consumers are unsuccessful as a promotional mechanism. One of the common practice used by pharmaceutical marketers to promote their brands is the direct marketing methodology where the representatives from the firm meeting professionals in the industry, i.e. doctors and pharmacists with the objective of educating and promoting the drugs or medical equipment. Although there are a large number of criticisms on the doctors' ethical behavior in these promotional interactions; this practice continuously used by pharmaceutical industry players to promote their brands.

2. OBJECTIVES OF THE STUDY

Pharmaceutical industry is a unique industry where promotions cannot be done as the Fast Moving Consumer Goods sector. The restrictions of promotions encourage the marketers and manufacturers of pharmaceutical products to find alternative promotional mechanisms to reach the target market. The activities which are aimed for professionals within the field are common among the pharmaceutical companies. There is ever increasing competition among the marketers to promote individual brands by executing various promotional related activities towards the professionals to push the brand to the patients. It is significant to explore the effectiveness of these promotional mechanisms when it comes to doctors' branded medicinal prescribing behavior. So this research is aiming to investigate the degree of impact from each promotional factor carried out by pharmaceutical companies on professionals' endorsement on branded medicine in pharmaceutical industry. In depth, the study is addressing the relationship between sponsorships, gifts, free samples, relationship practices and corporate brand image which had been identified from the international literature as common marketing methodologies used by the industry on professionals' branded medicine endorsement behavior within the Sri Lankan context.

3. LITERATURE REVIEW

Pharmaceutical products are available as generic and brands. There are also a large number of "me too" brands available as low price options for patients. Within this market, the doctor can be the key in getting a brand promoted and sold through prescriptions and also the doctor can become a gate keeper due to swapping from one brand to the other due to various reasons. The pharmaceutical companies are trying to keep their brand in top in the doctor's mind through various mechanisms.

Literature indicate that the physicians (residents and faculty alike) meet with pharmaceutical representatives up to four times a month and as a result of these interactions, residents are often provided with drug-sponsored meals and samples, whereas faculty are given more honoraria, conference travel, and research funding (Wazana, 2000). According to (Norris, Herxheimer, Lexchin, & Mansfield, 2005) pharmaceutical manufacturers spend vast sums of money on promotion, including sales representatives, samples, advertisements in broadcast and print media, and sponsorship of educational events and conferences.

According to Lakdawala (2006), doctor-targeted promotion takes a variety of forms:
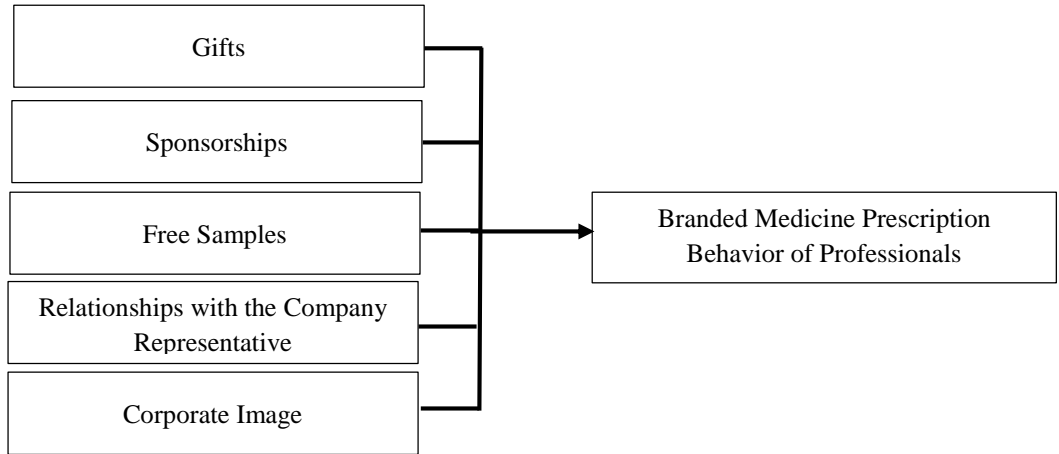
- Gifts, such as free samples, small stationery, travel to conferences and educational events, and, some executive even said, cash.
- Continuing medical education (CME), Sponsorship of conferences and educational events.
- The use of key opinion leaders – i.e. senior clinicians and medical educators as speakers at learned conferences.
- Funding of medical journals through advertising.

Separate studies by De Ferrari, et al 2014, Zaki, 2014, Wazana (2000) Banks and Mainour (1992), McInney, Scheidermeyer, Lurie et al (1990), all found that there is a strong correlation between doctors' tendencies to recommend drugs and their receipt of gifts/sponsorship/ non-related payment etc. According to Narendran & Narendranathan (2013) good rapport with the doctor, launch meetings reputation of the company, quality of the drug and brand names significantly influenced prescription behaviour, while direct mailers, advertisements in journals and giving letter pads and other brand reminders were less effective.

4. RESEARCH METHODOLOGY

A self-administered questionnaire was developed with 20 Likert scale questions with the continuum of strongly agreed (5 Marks), strongly disagreed (1 Marks). As the dependent variable doctors' prescription behavior of branded medicine was taken into consideration. As independent variables, five main promotional tools used by pharmaceutical firms were taken into consideration, i.e. gifts, sponsorships, free samples, interactions with company representatives and brand image. Under Gifts, doctors' name printed prescriptions pads, medical equipment, branded gifts were taken into consideration as sub indicators. Personal sponsorships, clinical meetings, sponsoring for educational purposes and sponsoring for private clinics were considered under Sponsorships while reduced pack samples and trade pack samples were taken as sub variables under Free Samples. Personal rapport built with the representative and doctor, product knowledge and interactive skills of the representative were considered as sub variables under the Pharmaceutical Representative Interactions for the study and corporate popularity and its Corporate Social Responsibility considerations were highlighted as sub variables for Corporate Image. The questionnaire was developed based on the conceptual framework illustrated in Figure 4.1. This was distributed among 80 professionals in Western Province in Sri Lanka and the respondents were given the opportunity to rank each question through the given scale. Convenience sampling methodology was adapted in distributing the questionnaires and visits were performed at hospitals both public and private, health centers and individual medical dispensaries. From the total, 66 questionnaires were returned from the respondents and from these, 06 questionnaires were rejected due to incomplete data.

Figure 1: Conceptual Framework of the study

Gifts

Sponsorships

Free Samples

Relationships with the Company Representative

Corporate Image

Branded Medicine Prescription Behavior of Professionals

5. FINDINGS

5.1 Reliability Test

Results of reliability test for main marketing methodologies used by organization to promote the pharmaceutical products to the doctors and doctors' prescription behavior towards branded medicine were shown in Table 5.1.

Table 5.1: Reliability Test Results

Variables	Dimension	No. of Items	Cronbach's Alpha for Dimension
Promotional Tools used by Organizations	Gifts	5	0.806
	Sponsorships	5	0.901
	Free samples	3	0.811
	Representatives'	5	0.768
	interactions	2	0.821
	Corporate image		
Professionals' prescription behavior		2	0.802

Reliability results indicated that the data that was gathered from the questionnaires were reliable. According to the table 5.1, the Cronbach's Alpha values of all the measured variables are greater than 0.7 and most of them are in the range of 0.8 which is consistent with Sekaran's (2009) suggestion, alpha over 0.7 are reliable and acceptable.

5.2 Correlation Analysis

A correlation analysis was carried out for the five independent variables identified through literature to determine their impact on doctors' branded medicine prescribing behavior. Below mentioned correlations were obtained to ensure the dependencies between the

independent and dependent variables. The bivariate correlation procedure was subject to a two tailed of statistical significance at a highly significant (p<0.05) level.

Table 5.2: Pearson Correlation Analysis for Main Variables

		Gifts	Sponsorships	Free Samples	Representative Interactions	Corporate Image
Professional's Prescribing Behavior	Pearson Correlation	.437	.682	.237	.380	.147
	Sig. (2-tailed)	.000	.000	.000	.000	.002
	N	60	60	60	60	60

Based on Table 5.2 all five dimensions taken as brand promotional methods were positively correlated to doctors' branded medicine prescribing behavior with the significant values that were less than 0.05. Sponsorships has the highest correlation coefficient (0.682), followed by gifts (0.437) and company representatives' interactions (0.380). Free samples (0.237) and corporate image (0.147) showed the weakest relationship with the dependent variables. According to the study the methodologies used by companies to promote their drugs are demonstrating a moderate correlation and substantial relationships with doctors' branded medicine prescription behavior.

5.3 Hypothesis Testing
a) Gifts and Branded Medicine Prescribing Behavior of Professionals

H1: There is a positive relationship between gifts and doctors' branded medicine prescribing behavior.

The correlation coefficient of .437 demonstrates that there is a positive moderate relationship between gifts and doctors' branded medicine prescribing behavior. Due to the positive correlation between the two variables H1 hypothesis is accepted.

b) Sponsorships and Branded Medicine Prescribing Behavior of Professionals
H2: There is a positive relationship between sponsorships and doctors' branded medicine prescribing behavior.

The correlation analysis clearly shows that there is a moderate positive relationship between sponsorships and doctors' branded medicine prescribing behavior with a correlation coefficient of .682 at a 95% confidence level. Due to the positive correlation between the two variables H2 hypothesis is accepted.

c) Free sample and Branded Medicine Prescribing Behavior of Professionals

H3: There is a positive relationship between free samples and doctors' branded medicine prescribing behavior.

The correlation coefficient of .237 demonstrates that there is a positive low correlation between free samples and doctors' branded medicine prescribing behavior at a 95% confidence level. Due to the positive correlation between the two variables H3 hypothesis is accepted.

d) Relationship with Company Representative and Branded Medicine Prescribing Behavior of Professionals

H4: There is a positive relationship between pharmaceutical representatives' interaction and doctors' branded medicine prescribing behavior.

The above analysis shows a moderate positive correlation between medical representatives' personal rapport and doctors' branded medicine prescription decision with a moderate positive correlation coefficient of 380. Due to this H4 hypothesis is accepted.

e) Corporate Image and Branded Medicine Prescribing Behavior of Professionals

H5: There is a positive relationship between corporate image and doctors' branded medicine prescribing behavior.

The analysis revealed a low positive correlation between corporate image and doctors' branded medicine prescription decision with a positive correlation coefficient of .147. Due to this H5 hypothesis is accepted.

5.4 Multiple Regression Analysis

Multiple regression analysis was used in this study to analyze the relationships when all intermediate independent variables such gifts, sponsorships, free samples, interactions with company representatives and brand image simultaneously influence to dependent variable, professionals' branded medicine prescription behavior.

Table: 5.3 – Multiple Regression Analysis

Promotional tools used by pharmaceutical firms	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	**Std. Error**	**Beta β**		
(Constant)	.632	.238		2.654	.009
Gifts	.184	.054	.220	3.409	.001
Sponsorships	.480	.047	.633	10.304	.000
Free Samples	.003	.052	.004	.049	.961
Interaction with Company Rep.	.126	.048	.193	2.593	.011
Corporate Image	.030	.043	.060	.707	.481
R2=0.611; Adjusted R2=0.595; F Value = 37.963**; Sig =0.000					

The multiple regression analysis was performed to examine the impact of brand promotional methodologies on doctors' prescribing behavior of branded medicine. According to Table 5.3, the R-square value shows that the average of 61.1% of the variation can be explained by the variation in all the five independent variables which included the promotional methodologies used by pharmaceutical firms. Results also indicated that three dimensions,

i.e. Gifts (β.220, t3.409, p<0.05), Interactions between the company Representatives (β.193, t2.593, p<0.05) and Sponsorships (β.663, t10.304, p<0.01) were statistically significant with the Professionals' prescribing behavior at 0.05 significant levels. As for the results, the promotional methodologies used as gifts, company representatives' interactions and the sponsorships were positively influencing the doctors' branded medicine prescribing behavior. Sponsorships (β.663, t10.304, p<0.01) had the highest impact towards Doctors' Prescribing behavior compared to that of Gifts (β.220, t3.409, p<0.05) and company representatives' interactions (β.193, t2.593, p<0.05).

6. CONCLUSION AND RECOMMENDATIONS

Researchers motivated to do this research because the pharmaceutical sector has conducted very little research on this area, and pharmaceutical industry facing a problem of sponsoring due to raising competition. It is clear from this research that gifts, free samples, the relationship between the doctor and the company representative, corporate image and specially the sponsorships are leading doctors to prescribe branded medicine to patients. Sponsorships, gifts and company representatives' interactions are the dominating influential factors when it comes to prescribing behavior.

6.1 Recommendations

Although there are many criticisms on the pharmaceutical company strategies on promoting medicine, it is evident that these are being continuously carried out and the doctors are influenced by the same. It is highly recommended to implement discussion groups on the ethical interaction between healthcare professionals and pharmaceutical companies in the betterment of patients. Also the pharmaceutical companies and representatives should take measures to provide the correct information to the professionals and also healthcare professionals should investigate the patients' background and their ability of affording the branded medicine before prescribing branded medicine.

6.2 Suggestions for Future Researchers

It is suggested for the future researchers to include more sample to gather data and the data collection to be done in different fields such as maternal nutritional supplements, surgical devices, children's medicine, etc. Also if the chemists can be included in the research, it will demonstrate a separate view since chemist plays a large role in the pharmaceutical market in forwarding medicine patients. Also the same research can be done with demographics of the professionals taken into consideration which will lead to better results.

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